

IN THE CLAIMS

1. A display monitor system; comprising:
 - a digital display panel with an array of pixels
5 for user viewing, and for accepting pixel information in
a plurality of formats and standards, and for adapting
itself to provide any real-time pixel information
directly to target pixels in said array of pixels;
 - a horizontal-line gate driver connected to
10 drive the digital display panel;
 - an interface controller for accepting and
conditioning TV-broadcast formats, and video formats into
pixel information, and that determines odd/even row,
progressive/interlaced timing, and for feeding control
15 information to the horizontal-line gate driver;
 - a timing controller for generating a pixel
clock, RGB data, line clock and controls to the
horizontal-line gate driver; and
 - a visual source driver for feeding whole rows
20 of pixel information into the digital display panel.
2. A display monitor system; comprising:
 - a digital display panel with an array of pixels
for user viewing, and for accepting pixel information in
25 a plurality of formats and standards, and for adapting
itself to provide any real-time pixel information
directly to target pixels in said array of pixels; and
 - at least one transducer disposed in the digital
display panel that is associated with a pixel and such
30 that a measurement it obtains can be read out.

3. The display monitor system of claim 2, further comprising:

5 a plurality of transducers disposed in the digital display panel wherein each is associated with at least one corresponding pixel, and such that a measurement each obtains can be individually read out.

4. The display monitor system of claim 2, further comprising:

10 at least one transducer disposed in the digital display panel that is associated with a corresponding pixel, and such that a measurement it obtains directly affects a visual display quality of said pixel.

15 5. The display monitor system of claim 4, further comprising:

a plurality of transducers disposed in the digital display panel wherein each is associated with at least one corresponding pixel, and such that a
20 measurement each obtains directly affects a visual display quality of each said associated pixels.

6. The display monitor system of claim 4, wherein:
the visual array is such that it can be
25 addressed as if it were a random access memory (RAM) to write pixel information and to read corresponding transducer measurements from a row-column address.

7. The display monitor system of claim 4, wherein:
30 the visual array is accessible as if it were a random access memory (RAM) to read out and write back pixel information with a row-column address.

8. A method of video display scaling, comprising:
applying incoming pixel as data input to a
shift register at its normal rate, but clocking it
through at a rate that scales picture information to a
5 digital display panel;

wherein, intervention by a processor to
effectuate picture scaling and resizing is avoided.

9. A method for interactive video display,
10 comprising:

displaying a dot of picture information in a
pixel of a digital display panel;

associating a sensor and locating it proximate
to said pixel; and

15 coupling said sensor to said pixel such that a
measurement obtained from said sensor directly affects
the visual appearance of said pixel to a user.

10. The method of claim 9, further comprising the
20 step of:

addressing the visual array as if it were a
random access memory (RAM) in order to write pixel
information and to read corresponding transducer
measurements from a row-column address.

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11. The method of claim 9, further comprising the
step of:

addressing the visual array as if it were a
random access memory (RAM) in order to read and write
30 pixel information.